

Name: \_\_\_\_\_

### at1110paper\_practice\_test (v44)

1. Solve the equation.

$$(2x + 7)(8x + 9) = 0$$

$$x = \frac{-7}{2} \quad x = \frac{-9}{8}$$

2. Factor the expression.

$$x^2 + 3x - 40$$

$$(x + 8)(x - 5)$$

3. Solve the equation with factoring by grouping.

$$15x^2 - 20x + 18x - 24 = 0$$

$$(5x + 6)(3x - 4) = 0$$

$$x = \frac{-6}{5} \quad x = \frac{4}{3}$$

4. Expand the following expression into standard form.

$$(7x + 9)(7x - 9)$$

$$49x^2 - 63x + 63x - 81$$

$$49x^2 - 81$$

5. Expand the following expression into standard form.

$$(2x - 9)^2$$

$$4x^2 - 18x - 18x + 81$$

$$4x^2 - 36x + 81$$

6. Solve the equation.

$$9x^2 - 18x + 2 = 2x^2 + 5x - 4$$

$$7x^2 - 23x + 6 = 0$$

$$(7x - 2)(x - 3) = 0$$

$$x = \frac{2}{7} \quad x = 3$$

7. Factor the expression.

$$64x^2 - 81$$

$$(8x + 9)(8x - 9)$$

8. Expand the following expression into standard form.

$$(8x - 3)(6x + 7)$$

$$48x^2 + 56x - 18x - 21$$

$$48x^2 + 38x - 21$$